**Balancing chemical equation 1:**

**Visual representation of the unbalanced chemical equation: The scale below is based on the number of elements not their mass.**

\_\_\_\_NH3 + \_\_\_O2 🡺 ­ \_\_\_ NO + \_\_\_\_H2O

O

2

H

2

N

1

**Before**

N

H

O

1

3

2

Graphic representation:

4

3

2

1

NR NP HR HP OR OP

You can use a bar graph to represent the count of each element on the left side (Reactants side, NR) and the count on the right side ( Product side, NP)

To be completed after balancing the equation:

N

H

O

H

N

O

**After**

\_\_\_\_NH3 + \_\_\_O2 🡺 ­ \_\_\_ NO + \_\_\_\_H2O

Graphic Representation:

NR NP HR HP OR OP

**Balancing chemical equation 2:**

\_\_\_\_\_C6H5COOH + \_\_\_\_\_ O2 🡺 \_\_\_\_CO2 + \_\_\_\_\_ H2O

**Before**

C

H

O

C

H

O

C

H

O

C

H

O

**After**

\_\_\_\_\_C6H5COOH + \_\_\_\_\_ O2 🡺 \_\_\_\_CO2 + \_\_\_\_\_ H2O

**Balancing chemical equation 3:**

\_\_\_\_\_KMnO4 + ­\_\_\_\_HCl 🡺 \_\_\_\_KCl + \_\_\_\_MnCl2 + \_\_\_\_Cl2 + \_\_\_\_ H2O

K

H

O

Mn

Cl

**Before**

K

H

O

Mn

Cl

K

H

O

Mn

Cl

K

H

O

Mn

Cl

**After**

\_\_\_\_\_KMnO4 + ­\_\_\_\_HCl 🡺 \_\_\_\_KCl + \_\_\_\_MnCl2 + \_\_\_\_Cl2 + \_\_\_\_ H2O